ELSEVIER

Robotics and Autonomous Systems 22 (1997) 407–408

Robotics and Autonomous Systems

Author index volume 22

Ahrns, I., *see* Bruske, J. 87
Andre, D., *see* Nourbakhsh, I.R. 151
Attolico, G., *see* Castellano, G. 133

Baluja, S. and D.A. Pomerleau, Expectation-based selective attention for visual monitoring and control of a robot vehicle 329
Benbrahim, H. and J.A. Franklin, Biped dynamic walking using reinforcement learning 283
Berns, K., *see* Ilg, W. 317
Blauvelt, G.R., *see* Murphy, R.R. 377
Bruske, J., I. Ahrns and G. Sommer, An integrated architecture for learning of reactive behaviors based on dynamic cell structures 87

Caprile, B., *see* Fusiello, A. 103
Castellano, G., G. Attolico and A. Distante, Automatic generation of fuzzy rules for reactive robot controllers 133
Cribbs III, H.B., *see* Smith, R.E. 65

Dillmann, R., *see* Ilg, W. 317
Distante, A., *see* Castellano, G. 133
Dudek, G., M. Jenkin, E. Milios and D. Wilkes, Large map validation and robot self-location in a graph-like world 159

Franklin, J.A., *see* Benbrahim, H. 283
Fusiello, A. and B. Caprile, Synthesis of indoor maps in presence of uncertainty 103

Gelenbe, E., N. Schmajuk, J. Staddon and J. Reif, Autonomous search by robots and animals: A survey 23
Gelenbe, E., A class of genetic algorithms with analytical solution 59
Gelenbe, E., Guest editorial: Biologically inspired autonomous systems 1
Genesereth, M.R., *see* Nourbakhsh, I.R. 151
Grupen, R.A., *see* Huber, M. 303

Harris, K.D. and M. Recce, Absolute localization for a mobile robot using place cells 393
Hershberger, D., *see* Murphy, R.R. 377
Huber, M. and R.A. Grupen, A feedback control structure for on-line learning tasks 303
Hunt, J.E., *see* Wilson, M.S. 215

Ilg, W., K. Berns, Th. Mühlfriedel and R. Dillmann, Hybrid learning concepts based on self-organizing neural networks for adaptive control of walking machines 317

Jenkin, M., *see* Dudek, G. 159

0921-8890/97/$17.00 © 1997 Elsevier Science B.V. All rights reserved

Khosla, R.M., *see* Voyles, R.M. 361
King, C.M., *see* Wilson, M.S. 215

Madon, D., *see* Mange, D. 35
Mange, D., D. Madon, A. Stauffer and G. Tempesti, Von Neumann revisited: A Turing machine with self-repair and self-reproduction properties 35
Meyer, J.-A., From natural to artificial life: Biomimetic mechanisms in animat designs 3
Milios, E., *see* Dudek, G. 159
Morrow, J.D., *see* Voyles, R.M. 361
Murphy, R.R., D. Hershberger and G.R. Blauvelt, Learning landmark triples by experimentation 377
Mühlfriedel, Th., *see* Ilg, W. 317

Nolfi, S., Evolving non-trivial behaviors on real robots: A garbage collecting robot 187
Nourbakhsh, I.R., D. Andre, C. Tomasi and M.R. Genesereth, Mobile robot obstacle avoidance via depth from focus 151

Pomerleau, D.A., *see* Baluja, S. 329

Raymond, S.M., *see* Saksida, L.M. 231
Recce, M., *see* Harris, K.D. 393
Reif, J., *see* Gelenbe, E. 23

Saksida, L.M., S.M. Raymond and D.S. Touretzky, Shaping robot behavior using principles from instrumental conditioning 231
Salomon, R., The evolution of different neuronal control structures for autonomous agents 199
Schmajuk, N., *see* Gelenbe, E. 23
Sharkey, N.E., Artificial neural networks for coordination and control: The portability of experiential representations 345
Sharkey, N.E., The new wave in robot learning 179
Smith, R.E. and H.B. Cribbs III, Combined biological paradigms: A neural, genetics-based autonomous systems strategy 65
Sommer, G., *see* Bruske, J. 87
Staddon, J., *see* Gelenbe, E. 23
Stauffer, A., *see* Mange, D. 35

Tempesti, G., *see* Mange, D. 35
Tomasi, C., *see* Nourbakhsh, I.R. 151
Touretzky, D.S., *see* Saksida, L.M. 231
Touzet, C.F., Neural reinforcement learning for behaviour synthesis 251

Van Brussel, H., *see* Xu, H. 115
Venkataraman, S.T., A simple legged locomotion gait model 75
Voyles, R.M., J.D. Morrow and P.K. Khosla, Towards gesture-based programming: shape from motion primordial learning of sensorimotor primitives 361

Wilkes, D., *see* Dudek, G. 159
Wilson, M.S., C.M. King and J.E. Hunt, Evolving hierarchical robot behaviours 215

Xu, H. and H. Van Brussel, A behaviour-based blackboard architecture for reactive and efficient task execution of an autonomous robot 115

ELSEVIER

Robotics and Autonomous Systems 22 (1997) 409–410

Robotics and Autonomous Systems

Subject index volume 22

Action selection	3
Active perception	377
Analytical solution	59
Animats	3
Artificial neural networks	329
Artificial neural networks	345
Automatic learning of fuzzy rules	115
Autonomous agents	199
Autonomous mobile robots	231
Autonomous navigation	329
Autonomous robot	133
Autonomous robotics	251
Autonomous robots	187
Autonomous systems strategy	65
Behaviour coordination	133
Behaviour-based	215
Behaviour-based architecture	133
Biological paradigms	65
Biped robot	283
Biped walking	283
Birth and death processes	59
Blackboard model	133
Braitenberg vehicles	199
Categorization	151
Control	345
Control composition	303
Coordination	345
Dead reckoning navigation	103
DEDS	303
Development	3
Dynamic cell structures	87
Evolution	3
Evolutionary algorithm	215
Evolutionary algorithms	199
Evolutionary robotics	187
Evolving neural network controllers	199
Expectation-based selective attention	329
Experiential representations	345
Focus	151
Fuzzy control	115
Gait model	75
Genetic algorithms	59, 65, 187
Gestures	361
Hierarchical behaviours	215
Hippocampus	393
Human demonstration	361
Hybrid learning	317
Instrumental learning	231
Integrated architecture	87
Learning	59, 361
Learning by experimentation	377
Legged robot	283
Legged robots	75
Localization	393
Machine learning	103
Map synthesis	103
Mobile robot	87
Mobile robotics	159, 393
Mobile robots	215, 377
Natural search	23
Navigation	3
Neural networks	65, 187
Neural pathways	75
Neural Q-learning	251
Non-metric mapping	159
Obstacle avoidance	87, 151
Obstacle avoidance behaviour	251
Operant conditioning	231
Optimized search strategies	23
Place recognition	377
Radial basis functions	317
RBF networks	87

0921-8890/97/$17.00 © 1997 Elsevier Science B.V. All rights reserved

Reactive control 87
Reactive navigation 115
Receptive fields 199
Reinforcement learning 87, 231, 251, 283, 303, 317
Robot exploration 103, 159
Robot learning 283, 345
Robot mapping 159
Robot navigation 159
Robotic skills 361
Robotics 23

Saliency map 329
Search for explosive mines 23
Self repair 35
Self reproduction 35
Self-organising map 251
Shaping 231
Sonar 103, 393
Stationary distribution 59
Sugeno fuzzy control 87

Temporal coherence 329
Topological mapping 159
Turing machine 35

Vision 151
Von Neumann 35

Walking machines 317
Walking 303
Water maze 393